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**P**HOTOGRAPHIC  
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**R**EPORT

**NEW AND EXPANDED SHIPYARDS, EAST  
SEA FLEET AREA, CHINA**

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MARCH 1975

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PIR-007/75

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INSTALLATION OR ACTIVITY NAME				COUNTRY	
New and Expanded Shipyards, East Sea Fleet Area				CH	
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NA	See Table 1	See Table 1	See Table 1	See Table 1	

MAP REFERENCE

DOD. USATC 200, Sheets 0386-22; 0492-2, -12; 0493-4, -6, -8, -12; and 0495-14, -15; scale 1:200,000

LATEST IMAGERY USED

NEGATION DATE (If required)

NA

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## ABSTRACT

1. An active program of expansion at existing shipyards and construction of new shipyards has been under way in China in the East Sea Fleet (ESF) area. This report describes activity at 22 ESF area shipyards, 11 improved and 11 under construction, during the period from late 1970 to late 1974.

2. The report, based on KEYHOLE photography between October 1970 and November 1974 contains a location map, a table, and 22 photographs.

## INTRODUCTION

3. Expansion and upgrading of shipbuilding facilities has been observed at 11 shipyards in the East Sea Fleet area (Figure 1 and Table 1). This expansion and upgrading includes construction of new buildingways and craneways; extension of existing buildingways and craneways; installation of portal and gantry cranes which have heavier lift capability; construction of new platen areas; construction of buildings which support the shipbuilding process; and construction of new fitting-out wharves. Six of the 11 expanded shipyards currently build combatants.

4. Eleven shipyards in the East Sea Fleet area were under construction during the period covered by this report. Seven of these were still under construction in September 1974 and were not operational. Two of the four operational yards have built combatants.

5. The expansion and upgrading of shipbuilding facilities have made several trends apparent:

a. Construction of larger merchant ships -- There are now eight inclined buildingways more than 550 feet long at five Shang-hai shipyards. Three of these buildingways have been completed since 1971. Merchant ships in excess of 500 feet length overall (LOA) have been built at three of the five yards.

b. Increased all-weather construction capability -- This is indicated by the construction of covered buildingways or construction halls at ten shipyards and by covering of overhead craneways at five yards.

c. Increased use of modular construction techniques -- This is evidenced by the expansion and construction of platen and subassembly areas at ten yards the addition of more and larger overhead cranes for handling plates and hull sections in the platen and subassembly areas at six yards, and the installation of larger portal cranes for handling modular sections in the shipbuilding areas at eight yards. Modular construction techniques cut buildingway time and generally increase efficiency.

6. Shipyards which function entirely or almost entirely as repair yards were not included in this report. However, ship repair facilities have been expanded along with shipbuilding facilities. Repair facilities have been expanded and upgraded at both naval bases and civilian port facilities.

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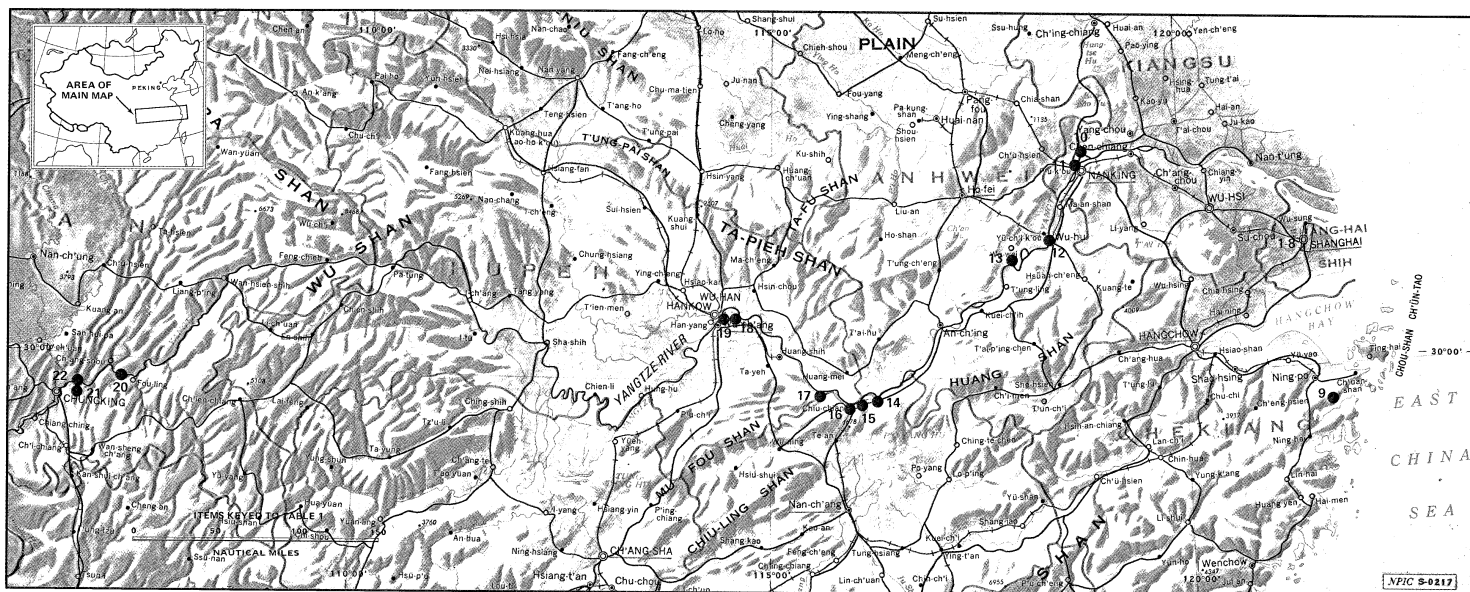


FIGURE 1. LOCATIONS OF NEW AND EXPANDED SHIPYARDS IN EAST SEA FLEET AREA, CHINA

Table 1. New and Expanded Shipyards, East Sea Fleet Area (Items keyed to Figure 1)

Item	Installation Name	Geographic Coordinates	Item	Installation Name	Geographic Coordinates
1	Shang-hai Shipyard Kiangnan Dock Co.	31-12-06N 121-28-51E	12	Wu-hu Shipyard	31-21-07N 118-21-02E
2	Shang-hai Naval Base & Shipyard Hu-tung	31-16-53N 121-33-58E	13	*Taung-yang Boatyard	30-41-30N 117-14-10E
3	Shang-hai Shipyard Chiu-hsin	31-12-40N 121-29-41E	14	Hu-kou Boatyard North	29-45-39N 116-14-51E
4	Shang-hai Naval Base & Shipyard International	31-15-51N 121-32-56E	15	*Chiu-chiang Boatyard	29-45-25N 116-03-10E
5	Shang-hai Shipyard Chung-hua	31-17-03N 121-33-34E	16	*Chiu-chiang Shipyard Uoon	29-42-45N 115-55-40E
6	Shang-hai Shipyard Tung-fang-hung	31-12-28N 121-30-08E	17	*Kuang-chi Shipyard	29-49-40N 115-30-40E
7	*Shang-hai Shipyard Pu-tung	31-15-04N 121-31-03E	18	Wu-han Shipyard Ching-shan	30-39-38N 114-25-59E
8	*Shang-hai Shipyard Chang-hua-peng	31-21-43N 121-29-55E	19	Wu-han Boatyard	30-31-15N 114-16-55E
9	*Sung-ao Shipyard	29-36-10N 121-44-10E	20	*Fou-ling Shipyard	29-44-45N 107-18-28E
10	*Ta-chang-chen Shipyard Uoon	32-14-07N 118-47-33E	21	*Chung-ching Shipyard South	29-36-00N 106-47-00E
11	Nan-ching Shipyard	32-06-45N 118-44-45E	22	*Chung-ching Shipyard North	29-37-00N 106-47-30E

\*Under construction during period covered by report.

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## BASIC DESCRIPTION

7. Shang-hai Shipyard Kiangnan Dock Company (Figure 2), China's leading submarine producer, is situated on the south side of Shang-hai on the west side of the Huang-pu River. Vessels built at the yard include one Ming-class submarine, Romeo-class submarines, ocean and coastal cargo ships, service vessels, and river vessels. Both combatants and civil craft are repaired at the yard.

8. Expansion of shipyard facilities [ ] included: 25X1

a. Construction of an offshore wharf on the upstream side of the existing fitting-out wharf. The new wharf [ ] has two approaches and is equipped with rails for a traveling crane. 25X1

b. Installation of a rail-mounted portal crane on the wharf at the downstream repair area.

c. Installation of gantry cranes at the heads of buildingways 6 and 7 and between craneway 6 and graving dock 1.

d. Construction of the following new buildings: a probable fabrication building in the northeast corner of the yard, an L-shaped shop on the downstream side of graving dock 3, a covered overhead craneway at the downstream repair area, and a support building at the upstream fitting-out area.

9. Shang-hai Naval Base and Shipyard Hu-tung (Figure 3), China's leading builder of guided missile patrol boats, is situated on the northeast side of Shang-hai on the east side of the Huang-pu River. Vessels built at the yard include one Kiangtung DE/DEG, one Hola PTFG, OSA PTFGs, Huchwan PTHs, Fuchou AOTLs, ocean and coastal cargo ships, service vessels, and river vessels.

10. Expansion of shipyard facilities [ ] included: 25X1

a. Completion of inclined buildingway 1, which is now the same length as inclined buildingway 2 [ ] 25X1

b. Construction of a quay approximately 430 feet long (with a large rail-mounted crane) between the launchway and the river.

c. Completion of the platen/materials storage area behind buildingways 1 and 2. The area is served by five large overhead cranes.

d. The addition of one large portal crane each to craneways 1 and 2.

e. The addition of one portal crane to craneway 3.

f. The addition of two large overhead cranes to the platen/materials storage area on the downstream side of buildingway 3.

g. Construction of a small floating pier [ ] on the downstream side of buildingway 1. 25X1

h. Construction of a new probable shop in the area between buildingway 2 and the launch basin.

11. Shang-hai Shipyard Chiu-hsin (Figure 4) is on the southeast side of Shang-hai on the west side of the Huang-pu River. Vessels built at this yard include one Kiangtung DE/DEG, Hainan PCs, Hoku PTGs, Huchwan Variant PTHs, Yenha AGBs, AGs, and AKLs.

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12. Expansion of shipyard facilities  included:

25X1

a. Completion of the inclined buildingway which is approximately 560 by 75 feet (construction probably began in April 1971).

b. Extension of the craneway on the downstream side of the inclined buildingway (the craneway now traverses almost the entire length of the buildingway).

c. Extension of the craneway on the upstream side of the inclined buildingway (the craneway now traverses the entire length of the buildingway) and the addition of two large portal cranes to the craneway.

d. Installation of a large gantry crane in the platen/materials storage area in the southwest corner of the yard.

e. Late-stage construction on a probable fabrication/subassembly building approximately 300 by 100 feet behind the inclined buildingway. The building contains an overhead craneway.

f. Construction of a support building in the southwest corner of the yard.

13. Shang-hai Naval Base and Shipyard International (Figure 5) is on the northeast side of Shang-hai on the east side of the Huang-pu River. The shipyard functions primarily as a repair yard for naval vessels, but the following types of vessels have been built there: OSA PTFGs, P-6 PTs, Shang-hai, Swatow, and Whampoa PGMs, PBs, LCMs, and various civil vessels.

14. Expansion of shipyard facilities  included:

25X1

a. The extension of buildingway 6 by approximately 215 feet into a new fabrication/subassembly building approximately 185 by 90 feet.

b. The addition of a portal crane (and possibly the base for another one) to the craneway which runs from the upstream side of the graving dock onto the upstream fitting-out wharf.

c. The addition of a portal crane to craneway 1.

d. Construction of a new probable fabrication building approximately 230 by 105 feet on the downstream side of the buildingways.

15. Shang-hai Shipyard Chung-hua (Figure 6) is on the northeast side of Shang-hai on the west side of the Huang-pu River. Vessels built at this yard include one Luta DDGS, the Chunghua ASR, LCMs, barges, and service craft.

16. Expansion of shipyard facilities  included:

25X1

a. Expansion of the yard area on the northwest side by approximately 9 acres.

b. Construction of footings for a large possible fabrication/subassembly building (approximately 460 by 100 feet) in the newly expanded area.

c. The addition of a monitor-roofed bay approximately 260 by 105 feet to the fabrication building on the upstream side of the buildingways and lengthening of the existing bay by approximately 65 feet.

d. Extension of the large fabrication/subassembly building behind the buildingways by a roof area approximately 180 by 70 feet; and the addition of a cover for the previously existing craneway to the rear of the fabrication/assembly building.

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17. Shang-hai Shipyard Tung-fang-hung (Figure 7) is on the southeast side of Shang-hai on the east side of the Huang-pu River. Large ocean cargo vessels (approximately 525 feet LOA), floating cranes, and barges have been built at this yard.

18. Expansion of shipyard facilities  included:

a. Construction of a fitting-out wharf approximately 330 by 50 feet with two approaches and a rail-mounted portal crane. The wharf is on the downstream side of the buildingway.

b. The addition of a large portal crane to the craneway on the downstream side of the inclined buildingway and the extension of that craneway past the buildingway toward the river.

c. Early-stage construction on a craneway on the upstream side of the buildingway (work on this craneway may have been suspended).

d. Installation of a large gantry crane in the platen/materials storage area at the head of the buildingway.

e. Construction of a probable administration building in the area at the head of the buildingway.

f. Possible construction of the foundation for a building on the upstream side of the buildingway.

19. Shang-hai Shipyard Pu-tung (Figure 8) is east of the center of Shang-hai on the south side of the Huang-pu River. Ocean cargo vessels up to approximately 530 feet LOA and auxiliaries have been built at the shipyard.

20. Expansion of shipyard facilities  included:

a. Construction of a new inclined buildingway on the downstream side of the existing inclined buildingway and slight lengthening of the existing buildingway; both are now approximately 550 feet long.

b. Construction of a craneway on the upstream side of the existing buildingway running the entire length of the buildingway; and installation of a large portal crane on the craneway

c. Construction of craneways on each side of the new inclined buildingway which extend more than the entire length of the way; and installation of a large portal crane on the upstream craneway.

d. Extension of the covered overhead craneway behind the large fabrication building near the head of buildingway 1.

e. Installation of the base for a new portal crane on the wharf in the downstream portion of the yard.

f. Construction of a large probable fabrication building in the downstream portion of the yard.

21. Shang-hai Shipyard Chang-hua-peng (Figure 9) is north of Shang-hai at Wu-sung near the mouth of the Huang-pu River. Floating piledrivers, barges and various service craft have been built at the yard since the facilities were renovated. Renovation of the yard began in early 1971 and was probably completed in early 1973.

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22. The new facilities include:

- a. An open buildingway/transverser system with at least five building positions (part of one building position is covered by a weather shed approximately 180 by 60 feet).
- b. A U-shaped wharf which encloses a synchrolift launch platform approximately 250 by 50 feet.
- c. A craneway which had two large portal cranes across the middle of the transverser area.
- d. One support building at the head of the transverser area and one support building in the upstream part of the yard.

23. Sung-ao Shipyard (Figure 10) is on the Hsiang-shan River 19 nautical miles (nm) southeast of Ning-po. Construction of the shipyard facilities began prior to 1972. The yard, in a late stage of construction, was partially operational [redacted]

24. Shipyard facilities consist of:

- a. A two-bay probable construction hall/subassembly building [redacted]  
[redacted]
- b. A transverser under construction (long enough to handle a vessel 220 feet LOA).
- c. Open buildingways/repairways under construction on the north and south sides of the transverser.
- d. An inclined launchway/marine railway.
- e. Two offshore wharves, [redacted] with two approaches and the other [redacted]  
[redacted] with one approach.
- f. Two fabrication buildings, five possible shops and administration housing, and support facilities.

25. Ta-chang-chen Shipyard Under Construction (Figure 11) is on a secondary channel of the Yangtze River 8 nm north of Nan-ching. Construction of the shipyard facilities began prior to 1972, and the yard was in a late stage of construction in November 1974. The shipyard has the only modern shipbuilding dock in China. When complete the yard will employ up-to-date modular construction techniques and will probably build merchant vessels.

26. Shipyard facilities consist of:

- a. A shipbuilding dock under construction with a probable building area 610 by 130 feet.\* A large overhead crane with a clearance [redacted] will traverse the entire length of the dock. Probable craneways for portal cranes are on each side of the overhead craneway and run the entire length of the dock. Lighting for the dock area will be supplied by lights on four towers positioned on the sides of the dock.
- b. A platen/subassembly area served by three overhead cranes.

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c. A components/materials transloading area with two parallel finger piers [ ] and 50 feet apart\*) which serve as a craneway for two overhead cranes.

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d. A transverser/craneway connecting the components/materials transloading area with the shipbuilding dock.

e. A possible fitting-out wharf [ ] with one approach.

25X1

f. One probable fabrication building, three probable shops, one administration building, five multistory housing buildings, and 24 storage/support buildings.

27. Nan-ching Shipyard (Figure 12) is on the east side of the Yangtze River in Nan-ching. Vessels built at this yard include liquid cargo barges approximately 280 feet long, dry cargo barges, and other river craft.

28. Expansion of shipyard facilities [ ] included:

25X1

a. Extension of the three open buildingways on the downstream side of the three-bay construction hall -- two by approximately 280 feet and one by approximately 260 feet.

b. Extension of the last two buildingways on the upstream side of the transverser -- one by approximately 280 feet and the other by approximately 200 feet.

c. Grading of the area between the subassembly building and the fabrication building and construction in that area of footings for extension of the transverser/open buildingway system.

d. Connection by rail of two bays of the subassembly building with the transverser/buildingway area.

e. Construction of a shop/support building between the subassembly building and the fabrication building.

f. Midstage construction on a large support building in the northeast corner of the yard.

29. Wu-hu Shipyard (Figure 13) is on the Yangtze River in Wu-hu. Vessels built at this yard include one Homa PTGH, Hoku PTGs, one 230-foot AG, AKLs, BMK-150 powerboats, and various river craft.

30. Expansion of shipyard facilities [ ] included:

25X1

a. Extension of the inclined buildingway to a maximum usable length of approximately 400 feet.

b. Completion of the platen area adjacent to the three-bay boatshed.

c. Completion of a craneway for a medium-sized portal crane between the inclined buildingway and the platen area.

d. Installation of the base for a large portal crane (the jib was on the ground near the base) and early-stage construction on its craneway.



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e. Completion of a support building and construction of footings for another probable support building in the southeast corner of the yard.

31. Tsung-yang Boatyard (Figure 14) is 15 nm northeast of An-ching on a secondary channel of the Yangtze River. Expansion and upgrading of facilities began in late 1972. Yunnan LCMs and river craft have been built at the boatyard.

32. Facilities include:

- a. A four-bay construction hall
- b. A transverser which can handle vessels up to 165 feet LOA.
- c. Open buildingways behind the transverser and on the east side of the construction hall.
- d. A single inclined launchway.
- e. A small probable fitting-out wharf.
- f. Six support buildings, two buildings under construction, footings for a large building, and a possible foundation for a building.

33. Hu-kou Boatyard North (Figure 15) is 13 nm northeast of Chiu-chiang and is situated on a small lake on the south side of the Yangtze River. The major facilities at the yard were completed

Huchwan Variant PTHs and Yuchin LCMs are probably built at the yard.

34. Facilities include:

- a. A boatshed  with an inclined launchway to the lake.
- b. A small possible fitting-out pier on the lake near the launchway.
- c. A marine railway with a rail-mounted platform for transferring vessels from the lake to the river.
- d. A floating wharf on the river near the marine railway.
- e. Two fabrication/subassembly buildings, six probable shops, and 25 support buildings.

35. Chiu-chiang Boatyard (Figure 16) is 2.5 nm east-northeast of Chiu-chiang on the south side of the Yangtze River. Construction of the shipyard facilities began in mid-1972, and the yard was probably operational by September 1974. Vessels that are probably either barges or lighters are currently being built at the yard.

36. Shipyard facilities include:

- a. A side launcher 145 feet\*\*\* wide.
- b. A transverser and four open buildingways.
- c. A two-bay probable fabrication/subassembly building (each bay is 260 by 60 feet\*\*\*).
- d. A fabrication building, five shops, housing and support buildings, and three buildings under construction.

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37. Chiu-chiang Shipyard Under Construction (Figure 17) is immediately west of Chiu-chiang on the south side of the Yangtze River. A small boatyard was formerly on this site. Renovation and upgrading of facilities began in early 1973.

38. Shipyard facilities include:

- a. A side launcher  under construction. 25X1
- b. A transverser under construction.
- c. Open buildingways under construction.
- d. A two-bay construction hall  25X1
- e. A floating wharf.
- f. Two fabrication buildings, two shops, 12 housing and support buildings, and four buildings under construction.

39. Kuang-chi Shipyard (Figure 18) is 26 nm northwest of Chiu-chiang on a small lake on the south side of the Yangtze River. Construction of shipyard facilities was first observed in December of 1970 and continued at a rapid pace until about mid-1972, when a slowdown was apparent. By early 1973 the construction hall, fabrication/subassembly buildings, and workshops were externally complete. Since that time two buildings of unknown function have been built in the area between the construction hall and the fitting-out pier. At least one small barge has been built at the yard; however, the yard was not considered operational  because earth dams still blocked access to the river by way of the one, and possibly two, dredged channels, and there appeared to be no means of launching vessels from the construction hall into the lake. 25X1

40. The complex consists of the main shipbuilding area, a probable fabrication/subassembly area immediately to the southwest, and a construction support area between the lake and the river. The main shipbuilding area contains the following facilities:

- a. A probable fitting-out pier  with a craneway running its entire length. 25X1
- b. A construction hall  containing two buildingways. 25X1
- c. Seven fabrication/assembly buildings; ten possible shops; and housing, administration, and support buildings.

41. The probable fabrication/subassembly area southwest of the main shipbuilding area consists of five large fabrication buildings, three fabrication/shop buildings, five shops, and at least 15 support buildings.

42. Wu-han Shipyard Ching-shan (Figure 19) is 10 nm northeast of Wu-han at the confluence of the Yangtze River and a canal. Vessels built at the yard are launched into the canal by means of a side launcher. Vessels built and repaired at the yard include small cargo vessels, barges, river craft, and service vessels.

- 43. Expansion of shipyard facilities  included: 25X1
  - a. Construction of a two-bay probable construction/repair hall over two of the existing ways (each bay is approximately 400 by 100 feet).
  - b. Extension of the first four buildingways/repairways on the south side of the transverser. Each is now approximately 570 feet long.

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c. Construction of a three-bay probable shop, a fabrication building, five support buildings, and footings for a probable four-bay building.

44. Wu-han Boatyard (Figure 20) is on the east side of the Yangtze River in Wu-han. Barges and river craft have been built at the yard.

45. Expansion and upgrading of the shipyard facilities

included:

- a. Completion of four covered buildingways (the bays are approximately 240 feet long).
- b. Completion of the transverser/side launcher, which is approximately 175 feet wide, and construction of the winch house.
- c. Filling and grading of the area immediately downstream from the transverser for probable construction of new buildingways.
- d. Construction of two support buildings at the edge of the river.

46. Fou-ling Shipyard (Figure 21) is on the north side of the Yangtze River 41 nm northeast of Chung-ching. Construction of the shipyard facilities began prior to 1970 and is now in a mid-to-late stage.

47. Shipyard facilities consist of:

- a. A two-bay, four-buildingway construction hall under construction
- b. A transverser in an early stage of construction.
- c. A marine railway/inclined launchway approximately 935 feet long which will be used to move vessels from the transverser and launch them into the river.
- d. A two-bay fabrication/subassembly building behind the construction hall.
- e. A possible transverser under construction between the fabrication/subassembly building and the construction hall.
- f. Five large fabrication buildings, seven fabrication/shop buildings, and administration and housing facilities.

48. Chung-ching Shipyard South (Figure 22) is on the south side of the Yangtze River approximately 12 nm northeast of Chung-ching. Construction of the shipyard facilities began prior to August 1969 and is now in a mid-to-late stage.

49. Shipyard facilities consist of:

- a. A two-bay construction hall with one open buildingway parallel to the bays (each  and the open way is of comparable size; a covered extension to the rear of one bay is 120 feet long\*).
- b. A transverser under construction.
- c. An inclined launchway.
- d. Two fabrication/assembly buildings, seven fabrication/shop buildings, 45 support buildings, and administration and housing facilities.

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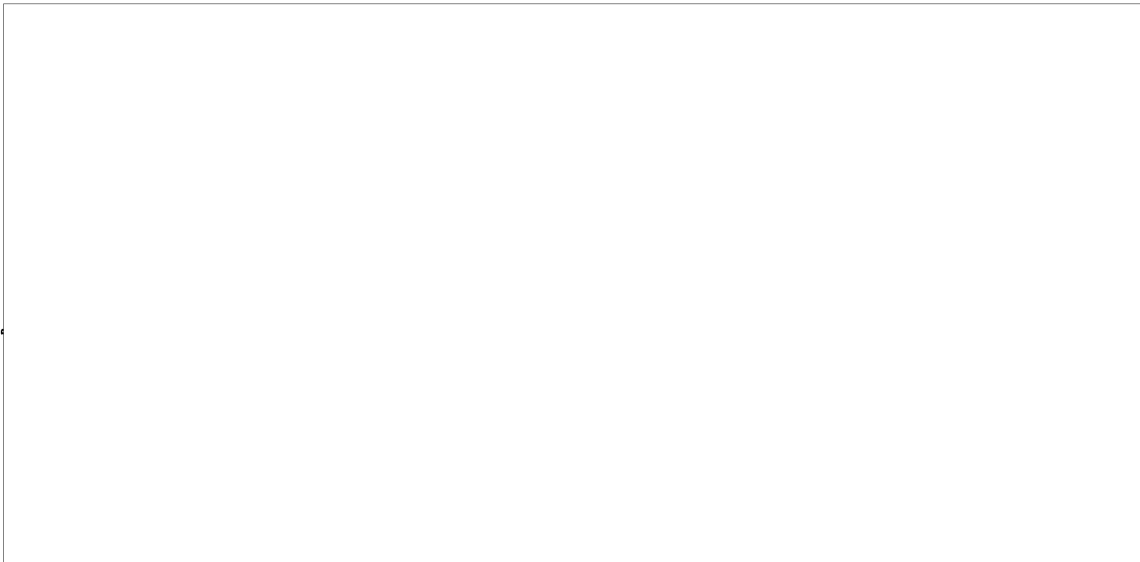
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50. Chung-ching Shipyard North (Figure 23) is on the north side of the Yangtze River approximately 12 nm northeast of Chung-ching. Construction of the shipyard facilities began prior to August 1969 and is in a mid-to-late stage.

51. Shipyard facilities consist of:

- a. One possible transverser/open buildingway under construction.
- b. One possible inclined launchway under construction.
- c. Four fabrication/assembly buildings, two fabrication/shop buildings, 15 support buildings, and administration and housing facilities.




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**MAPS OR CHARTS**

DOD. US Air Target Chart, Series 200, Sheets 0386-22; 0492-2, -12; 0493-4, -6, -8, -12; and 0495-14, -15; scale 1:200,000

**RELATED DOCUMENTS**

NPIC.  PIR-014/71, *Shang-hai Shipyard Expansion, China*, Apr 71 (TOP SECRET RUFF)

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NPIC.  PIR-038/71, *Southeast China Shipyard Expansion China*, Aug 71 (TOP SECRET RUFF)

**REQUIREMENT**

Project 143432NT



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